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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,512	02/06/2002	Louise C. Sengupta	PARA 50243	1051

7590 08/21/2002

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EXAMINER
LEE, BENNY T

ART UNIT	PAPER NUMBER
2817	

DATE MAILED: 08/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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DATE MAILED:

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on _____ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire three (3) month(s), _____ days from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☒ Notice of References Cited by Examiner, PTO-892.
2. ☐ Notice re Patent Drawing, PTO-948.
3. ☐ Notice of Art Cited by Applicant, PTO-1449
4. ☐ Notice of Informal Patent Application, Form PTO-152
5. ☐ Information on How to Effect Drawing Changes, PTO-1474
6. ☐ _____

Part II SUMMARY OF ACTION

1. ☒ Claims 1-9 are pending in the application.

Of the above, claims _____ are withdrawn from consideration.

2. ☐ Claims _____ have been cancelled.

3. ☐ Claims _____ are allowed.

4. ☒ Claims 1-9 are rejected.

5. ☐ Claims _____ are objected to.

6. ☐ Claims _____ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.

8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on _____. These drawings are ☐ acceptable; ☐ not acceptable (see explanation).

10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on _____ has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed _____, has been ☐ approved. ☐ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections MUST be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.

12. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

TOL-326 (Rev. 7-82) EXAMINER'S ACTION

SN. 68512

The disclosure is objected to because of the following informalities: Page 1, lines 1-4, note that updated status information for parent application S.N. 419047 should be provided (e.g. patent number, issue date, etc). Page 3, in the "summary of the invention", should the summary be rewritten to reflect the currently claimed invention?

Appropriate correction is required.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In all claims, note that it is unclear whether "a coplanar line" properly characterizes the claimed invention, especially since the body of claim 1 appears to define a "conductor" and "ground planes" on "opposite sides" of the "conductor", where such an arrangement does not appear to define a "coplanar line". Clarification is needed.

In claim 3, note that the modifier "generally" renders the parallel orientation of the layers vague and indefinite. Also, note that the recitation "at least selected ones..." renders the claim vague and indefinite since it is unclear what else (i.e. other than "selected ones") is encompassed by the "at least" recitation. Clarification is needed.

In claim 4, note that it is unclear in what manner are "said subassemblies" considered "identical to each other".

In claim 9, note that it is unclear what is intended to be encompassed by the recitation "a combination thereof".

The following claims have been found objectionable for reasons set forth below:

In claim 1, fourth paragraph, note --said first and second electrodes-- is suggested.

In claim 2, note that "a dielectric constant" should be rephrased as --the dielectric constant-- for consistency of description.

In claims 4, 7, 8, note that --of dielectric material-- should follow the respective occurrence of "layers" in the corresponding claims.

In claims 6, 9, should these claims be placed in a proper Markush format?

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes.

Barnes (fig. 1A) discloses an apparatus having a first dielectric (i.e. BSTO ferroelectric) thin film layer (11) whose dielectric constant (ε_2) is greater than that of a second dielectric bulk layer (14). In other words, the second dielectric constant (ε_1) is less than the first dielectric constant (ε_2). First and second electrodes are affixed to a microstrip signal conductor (12) and ground conductors (13) on opposite sides of conductor (12). By this

arrangement, a controllable voltage (Vpc) is applied across first dielectric (11) and conductor (12) is dispose adjacent an "edge" or surface of dielectric (11, 14).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
> This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes.

Although the specific dielectric constant and loss tangent is unspecified by Barnes, those of ordinary skill in the art would have found it an obvious optimization of parameters to have provided the specific dielectric constant and loss tangent.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible

harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-3, 5, 6, 9 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5, 7 of copending Application No. 68355. Although the conflicting claims are not identical, they are not patentably distinct from each other because aside from the specific apparatus recited in the preamble of the claims of each application, the remaining structural and functional limitations are otherwise identical.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gruenwald and Tershima pertain to multi-layered ferroelectric apparatuses.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number (703) 308-4902.

Benny Lee

BENNY T. LEE
PRIMARY EXAMINER
ART UNIT 2817

B. Lee/mm

08/13/02